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10/780,005	02/17/2004	Frank M. Simonutti	WG0057H	9568

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EXAMINER

HUNTER, ALVIN A

ART UNIT

PAPER NUMBER

3711

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/780,005	SIMONUTTI ET AL.
	Examiner	Art Unit
	Alvin A. Hunter	3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 22 June 2005.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1,2,5,8,10-13,18,19,28-30,32-34,36,37,41,42 and 57-68 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1,2,5,8,10-13,18,19,28-30,32-34,36,37,41,42 and 57-68 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/29/05

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 5, 8, 10, 13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 5779561) in view of Sullivan et al. (USPN 5984806) and Sullivan (USPN 5306760).

In regards to claims 1 and 8, Sullivan et al. '561 discloses a golf ball comprising a solid center 10 having a deflection, under an applied static load of 200 lb., of between about 0.100 inches and about 0.140 inches, equivalent to a PGA compression of 60 to 100; at least one intermediate layer 14 comprised of thermoplastic material; and a cover layer 16 comprising an ionomer or ionomer blend and having a Shore D hardness, measured on the curved surface of the golf ball, of greater than about 60 (See Summary of the invention, Column 7, lines 21 through 23; Paragraph bridging columns 10 and 11; and paragraph bridging columns 13 and 14 and Figure 1). It is submitted that the being that the structure the golf ball has been met, being struck by a driver club at a clubhead velocity of about 160 feet-per-second and an initial velocity off the clubhead of greater than about 240 feet- per-second is inherently meet by Sullivan et al. Sullivan et

al. '561 notes that the intermediate layer may contain an ionomer, but does not discloses the type of ionomer. Sullivan et al. '806 discloses a golf ball comprising an ionomer made of a copolymer of ethylene and acrylic acid wherein the ionomer is totally neutralized with metal ions (See Column 18, lines 28 through 42). It is further noted that the composition may contain a monomer of an acrylic ester class, wherein Sullivan et al. 1806 recognizes that butyl acrylate is within the acrylate ester class (See Column 17, lines 30 through 41 and Column 21, lines 24 through 40). One having ordinary skill in the art would have found it obvious to incorporate an copolymer of ethylene and acrylic acid and n-butyl acrylate, wherein about 100% of the acid is neutralized With metal ions, as taught by Sullivan et al. '806, into that of Sullivan et al. '561 in order to increase the durability of the golf ball. Sullivan '760 discloses a golf ball cover composition made of an ionomer resin wherein the composition is neutralized by a fatty acid wherein the fatty acid are substitutable for each other and are from the group of metal stearates, metal oleates, metal palmitates, metal pelargonates, metal . laureates (See Abstract). It should also be noted that Sullivan '806 teaches that the intermediate layer can also constitute a part of the cover. Applicant does not discloses why the use of magnesium oleate is critical in order to attain the invention; therefore, one ordinarily skilled in the ad would have concluded in view of Sullivan '760 that any type of fatty acid would have been sufficient to use within the ionomer resin of the intermediate layer.

In regards to claim 2, Sullivan et al. '561 discloses the golf ball having a coefficient of restitution of at least 0.750 (See Summary of the invention). Sullivan et al. '561 noted that the COR was test with a velocity of 125+ 5 fps (See Column 4, lines 62

through 67). Being that the COR is linearly related to the velocity, it is submitted that the golf ball of Sullivan et al. has a COR of greater than 0.815 at a test velocity of 150 fps.

In regards to claim 5, Sullivan et al. '516 discloses the at least one intermediate layers having a Shore D hardness as measured on the curved outer surface of the at least one intermediate layer of less than 65.

In regards to claims 10 and 13, Sullivan et al. '516 discloses the ball having a diameter of at least 1.680 in. (See Column 7, lines 5 and 6). Applicant does not disclose why a diameter of less than 1.68 inches is necessary to attain the invention. One having ordinary skill in the art would have found such to be an obvious matter of design choice. The diameter of Sullivan would perform equally as well because it reduces backspin, which inherently produces a more balanced golf ball.

In regards to claims 18 and 19, Sullivan et al. '561 discloses the mantle 14 comprising density increasing fillers such as tungsten (See Columns 8 and 9).

2. Claims 28-30, 32, 36, 37, 41, 42, and 64-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 5779561) in view of Sullivan (USPN 5984806) and Yamada et al. (USPN 5585440).

In regards to claim 28 and 67, Sullivan et al. 1561 discloses a golf ball comprising a solid center 10 having a deflection, under an applied static load of 200 lb., of between about 0.100 inches and about 0.140 inches, equivalent to a PGA compression of 60 to 100; at least one intermediate layer 14 comprised of thermoplastic material; and a cover layer 16 comprising an ionomer or ionomer blend and having a Shore D hardness, measured on the curved surface of the golf ball, of greater than

about 60 (See Summary of the invention; Column 7, lines 21 through 23; Paragraph bridging columns 10 and 11; and paragraph bridging columns 13 and 14 and Figure 1). It is submitted that the being that the structure the golf ball has been met, being struck by a driver club at a clubhead velocity of about 160 feet-per-second and an initial velocity off the clubhead of greater than about 240 feet- per-second is inherently met by Sullivan et al. '561. Sullivan et al. '561 notes that the intermediate layer may contain an ionomer, but does not disclose the type of ionomer. Sullivan et al. '806 discloses a golf ball comprising an ionomer made of a copolymer of ethylene and acrylic acid wherein the ionomer is totally neutralized with metal ions (See Column 18, lines 28 through 42). It is further noted that the composition may contain an monomer of an acrylic ester class, wherein Sullivan et al. '806 recognizes that butyl acrylate is within the acrylate ester class (See Column 17, lines 30 through 41 and Column 21, lines 24 through 40). One having ordinary skill in the art would have found it obvious to incorporate an copolymer of ethylene and acrylic acid and n-butyl acrylate, wherein about 100% of the acid is neutralized with metal ions, as taught by Sullivan et al. '806, into that of Sullivan et al. '561 in order to increase the durability of the golf ball. Sullivan et al. '561 does not explicitly disclose the core synthesize with neodymium. Yamada et al. discloses a rubber composition for use as a golf ball core wherein the composition comprises a high-cis (more than 40%) content polybutadiene rubber wherein the rubber is synthesized with a neodymium catalyst (See Summary of the invention). One having ordinary skill in the ad would have found it obvious to have the core comprise of a high

cis polybutadiene catalyzed with neodymium, as taught by Yamada et al., in order to improve the workability, processability, and impact resilience of the golf ball.

In regards to claims 29 and 68, Sullivan et al. '561 discloses the golf ball having a coefficient of restitution of at least 0.750 (See Summary of the invention). Sullivan noted that the COR was test with a velocity of 125+ 5 fps (See Column 4, lines 62 through 67). Being that the COR is linearly related to the velocity, it is submitted that the golf ball of Sullivan et al. has a COR of greater than 0.815 at a test velocity of 150 fps.

In regards to claims 30 and 64, Yamada et al. discloses the polybutadiene comprising a high cis-1,4 content polybutadiene and the core further comprising about 5 to about 60 parts by weight of a co-crosslinking agent comprised primarily of a zinc salt of an unsaturated acrylate, about 5 to about 60 parts by weight of a metal oxide activator, and about 0.1 to about 10 parts per hundred resin of a free radical initiator (See Columns 3 through 5).

In regards to claim 32, Sullivan et al. '806 discloses the thermoplastic material comprising about 80% ethylene, 8-10.5% acrylic acid and about 12 to 20% n-butyl acrylate, being that low acid ionomers inherently have an acid content of less than 16% and can be combined with a comonomer (See Column 17, lines 30 through 45).

In regards to claims 36 and 37, Sullivan et al. discloses the ball having a diameter of at least 1.680 in. (See Column 7, lines 5 and 6). Applicant does not disclose why a diameter of less than 1.68 inches is necessary to attain the invention. One having ordinary skill in the art would have found such to be an obvious matter of design choice.

The diameter of Sullivan would perform equally as well because it reduces backspin which inherently produces a more balanced golf ball.

In regards to claims 41 and 42, Sullivan et al. '561 discloses the mantle 14 comprising density increasing fillers such as tungsten (See Columns 8 and 9).

In regards to claims 65 and 66, Sullivan #t al. '561 disclose in the examples that the golf ball having a weight of 43.8 to 45.9 grams. Applicant does not disclose why the weight ranges claimed are critical in order to attain the invention. Being that the examples do not limit the invention thereto, one having ordinary skill in the art would have drawn from Sullivan et al. '561 that the weight of the golf ball can be of any value so long as the goals of the invention are attained.

3. Claims 59-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 5779561) in view of Sullivan (USPN 5984806) and Yamada et al. (USPN 5585440) further in view of Sullivan (USPN 5306760).

In regards to claim 59, Yamada et al. discloses the polybutadiene comprising a high cis-1,4 content polybutadiene and the core further comprising about 5 to about 60 parts by weight of a co-crosslinking agent comprised primarily of a zinc salt of an unsaturated acrylate, about 5 to about 60 parts by weight of a metal oxide activator, and about 0.1 to about 10 parts per hundred resin of a free radical initiator (See Columns 3 through 5).

In regards to claims 60 and 61, Sullivan et al. '561 disclose in the examples that the golf ball having a weight of 43.8 to 45.9 grams. Applicant does not disclose why the weight ranges claimed are critical in order to attain the invention. Being that the

examples do not limit the invention thereto, one having ordinary skill in the art would have drawn from Sullivan et al. '561 that the weight of the golf ball can be of any value so long as the goals of the invention are attained.

Regarding claims 62 and 63, Sullivan '760 discloses a golf ball cover composition made of an ionomer resin wherein the composition is neutralized by a fatty acid wherein the fatty acid are substitutable for each other and are from the group of metal stearates, metal oleates, metal palmitates, metal pelargonates, metal laureates (See Abstract). It should also be noted that Sullivan '806 teaches that the intermediate layer can also constitute a part of the cover. Applicant does not disclose why the use of magnesium oleate is critical in order to attain the invention; therefore, one ordinarily skilled in the art would have concluded in view of Sullivan '706 that any type of fatty acid would have been sufficient to use within the ionomer resin of the intermediate layer. Sullivan also notes that the fatty acid is present in greater than 10 pph resin (See Abstract).

4. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 5779561) in view of Sullivan (USPN 5984806) and Sullivan (USPN 5306760) further in view of Yamagishi et al. (USPN 5779563).

In regards to claim 11, the combination above does not disclose the core, intermediate layer, and cover layer having approximately the same specific gravity. Yamagishi et al. discloses a golf ball having a core 1, intermediate layer 2 and cover 3 having approximately the same specific gravity (See Column 2, lines 64 and 65; Paragraph bridging Columns 3 and 4; and Column 4 lines 28 through 33). On having ordinary skill in the art would have found it obvious to have the core, intermediate layer,

and cover layer having approximately the same specific gravity, as taught by Yamagishi et al ., in order to improve the golf ball's distance, controllability, roll and straight travel. In regards to the solution, it is submitted that the combination would perform such act, being that the limitation requires testing in which the applicant is aware the office has not means of doing.

In regards to claim 12, Yamagishi et al. discloses the specific gravity between the core, intermediate layer, and cover being 1.02 to 1.18, 1.10-1.25, and 0.9 to 1.2, wherein the cover is greater than the core by at least 0.01 (See Column 2, lines 64 and 65; Paragraph bridging Columns 3 and 4; and Column 4, lines 28 through 33).

5. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 5779561) in view of Sullivan (USPN 5984806) and Yamada et al. (USPN 5585440) further in view of Yamagishi et al. (USPN 5779563).

In regards to claim 33, the combination above does not disclose the core, intermediate layer, and cover layer having approximately the same specific gravity. Yamagishi et al. discloses a golf ball having a core 1, intermediate layer 2 and cover 3 having approximately the same specific gravity (See Column 2, lines 64 and 65; Paragraph bridging Columns 3 and 4; and Column 4 lines 28 through 33). On having ordinary skill in the art would have found it obvious to have the core, intermediate layer, and cover layer having approximately the same specific gravity, as taught by Yamagishi et al., in order to improve the golf ball's distance, controllability, roll and straight travel. In regards to the solution, it is submitted that the combination would perform such act,

being that the limitation requires testing in which the applicant is aware the office has not means of doing.

In regards to claim 34, Yamagishi et al. discloses the specific gravity between the core, intermediate layer, and cover being 1.02 to 1.18, 1.10-1.25, and 0.9 to 1.2, wherein the cover is greater than the core by at least 0.01 (See Column 2, lines 64 and 65; Paragraph bridging Columns 3 and 4; and Column 4 lines 28 through 33).

***Response to Arguments***

Applicant's arguments filed 6/22/05 have been fully considered but they are not persuasive. Applicant argues the following issues:

- A. Sullivan et al. does not teach a hardness of at least greater than about 70 Shore D;
- B. Sullivan et al. '561 does not teach a carboxylic acid neutralized at 100%;
- C. Sullivan et al. '806 does not teach the outer cover being a terpolymer;
- D. Sullivan et al. '750 does not teach magnesium oleate; and
- E. Yamagishi et al. teaches away from the specific gravity being approximately the same.

The examiner disagrees.

In regards to issue A, "The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)). Sullivan et al.

discloses that the outer cover has a hardness greater than 60; meaning that the hardness can be of any value so long as it is greater than 60. One having ordinary skill in the art can clearly draw this from Sullivan et al.

In regards to issue B, Sullivan et al. '561 notes that he carboxylic acid can be totally neutralized. Merriam-Webster Dictionary defines "totally" as being "to a total or complete degree" or "entirely." If the carboxylic acid is "totally" neutralized it must be neutralized completely.

In regards to issue C. The applicant should carefully look at Sullivan et al. '561 again. Column 21, lines 25-40 notes that a comonomer can be added to the ionomer composition. The comonomer is art recognized as being used to soften the ionomer resin.

In regards to Issue D, Sullivan et al. '760 discloses the use of oleates for neutralizing a carboxylic acid. Based on Sullivan et al. '760 any type of metal oleate would suffice in neutralizing a carboxylic acid. Magnesium is art recognized as being a metal; therefore, Sullivan et al. '760 would suggest that the any type of metal oleate would be equivalent to that of another metal oleate. The applicant also sets forth on page 6, paragraph 0019, that any metal ion may be used to neutralize the carboxylic acid. Based on this disclosed language, the type of oleate is an arbitrary design choice.

In regards to Issue E, The claim recites that the specific gravities are approximately the same. The language also implies that the specific gravity of each layer may be slighter larger or lower than another layer. Yamagishi et al. notes that the outer cover has a specific gravity of 0.01 to 0.15 greater than the core, the inner cover

has a specific gravity of 0.9 to 1.2, and the core has a specific gravity of 1.02 to 1.18. It is also noted that the outer cover has a specific gravity of at least 1.10. To the contrary, Yamagishi et al. encompasses the the idea of the layers being approximately the same so long as it meet the ranges set forth by Yamagishi et al. The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. *In re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972) (discussed below); *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1990), cert. denied, 500 U.S. 904 (1991) (discussed below). Although *Ex parte Levengood*, 28 USPQ2d 1300, 1302 (Bd. Pat. App. & Inter. 1993) states that obviousness cannot be established by combining references "without also providing evidence of the motivating force which would impel one skilled in the art to do what the patent applicant has done" (emphasis added), reading the quotation in context it is clear that while there must be motivation to make the claimed invention, there is no requirement that the prior art provide the same reason as the applicant to make the claimed invention.

Applicant also argues issues with respect to the COR not being met because the structure is not met. Applicant attention is directed to the above regarding issue A. Sullivan et al. notes that the outer cover is at least 60 Shore D or greater. Being that the hardness has an open ended upper range, one skilled in the art would concluded that the hardness may be of any value as long as it is greater than 60 Shore D. Furthermore, the COR of the golf ball is measure at 125 fps, whereas the golf ball of the

instant invention is measured at 160 fps. Claim 1 only requires that a golf ball be struck at 160 fps, in which the combination can clearly be struck at 160 fps. Also as stated in the office action, the office does not have the ability to conduct tests. The speeds at which the ball were struck were arbitrarily selected; therefore, being that the office does not have the ability to test these properties, it is submitted that the combination above meets these properties. Furthermore, it is not seen why the applicant did not conduct the test of the COR at 160 fps. Table 4 of the applicant's specification, shows that the golf balls were tested at 150 and 175 fps. The examiner questions whether claim 1 is indefinite because about is not set forth being that the ball is shown being struck at 150 and 175 fps. Applicant is submitted to place on the record what the term "about" encompasses. Also, the COR is linearly related to the hardness. Attached to the office action is proof thereof.

For these reasons, the above rejection has been furnished.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pages 412-414 and 482-485 of the Science and Golf III discussing the hardness relationship to resilience and the hardness relationship to the COR and hardness wherein the tests were conducted using ionomers.

Merriam-Webster's Disctionary of the definition of "totally" wherein "totally" is defined as being "to a complete degree" or "entirely."

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is (571) 272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Kim, can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*AAH*  
Alvin A. Hunter, Jr.

*Eugene Kim*

EUGENE KIM  
PRIMARY EXAMINER